

REMARKS**A. Claim Amendments**

Claim 67 is cancelled in this response.

Claim 69 was rejected under 35 USC 112, second paragraph is being indefinite. The Examiner correctly pointed out that this claim referred to "the strips," while claim 63, from which it depends, names both "strips of polysilicon" and "strips of dielectric material," leaving it unclear to which strips the claim referred. Applicants appreciate the correction and have accordingly amended claim 69 to recite the wafer of claim 68 wherein the strips of polysilicon have a shortest dimension between 0.25 and 500 microns. Support for this claim can be found in paragraph [0022].

B. Status of the Claims

Claims 63-66 and 68-70 are currently pending in the present application. Claims 66 and 67 were objected to. Claims 67 and 69 were rejected under 35 USC 112. Claims 63-65 and 68-70 were rejected under 35 USC 102/103 as anticipated by or obvious over Wu, US Patent No. 6,008,087.

C. Claim 66: Objection

The Examiner objected to claim 66, asserting that its scope is identical to that of claim 64. With respect, Applicants point out that claim 64 recites a first percentage greater than 50 percent and less than or equal to 70 percent. Claim 66, in contrast, depends from claim 65, and thus recites a percentage greater than 50 percent and less than 60 percent. The ranges named in these two claims are different, and thus Applicants believe that their scope is different.

D. Claim 67: Objection and Rejection

Claim 67 was objected to under 35 USC 132 and was rejected under 35 USC 112, first paragraph. Claim 67 has been cancelled.

E. Claim 69: 35 USC 112 rejection

Claim 69 was rejected under 35 USC 112, second paragraph, for indefiniteness. The Examiner correctly pointed out that the antecedent for the word "strips" as used in

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the claim was ambiguous. Applicants appreciate the correction and have amended the claim accordingly, as discussed in section A of these Remarks.

F. Claims 63-66 and 68-70: 35 USC 102/103 rejection

Claims 63-66 and 68-70 have been rejected under 35 USC 102, or, alternately, 35 USC 103 as being either anticipated by or obvious over Wu.

Claim 63 recites a wafer having a surface, the surface comprising a plurality of elongated strips of polysilicon; and a plurality of elongated strips of dielectric material, the strips of dielectric material alternating with the strips of polysilicon, wherein the surface has been planarized by chemical mechanical planarization, and wherein a first percentage of total wafer surface area that is polysilicon is less than or equal to 70 percent.

Referring to, for example, Figs. 4-6 of Wu, the Examiner points to alternating areas of polysilicon 16 and oxide 20. The Examiner says:

With respect to claims 64-67, Wu teaches the dimensions of the silicon nitride pattern 6 (300-3000 Å), the opening 12 (500-5000 Å), and the thickness of the polysilicon layer 16 (200-3000 Å) thus, encompass the claimed first percentage of greater than 50 percent ... less than or equal to 60 percent ... or less than or equal to 50 percent ...

Wu does indeed provide the ranges cited by the Examiner for each of the elements cited. But Wu provides no guidance for the *relative* dimensions to be used, as recited in the claims.

To take one example, suppose the structure of Wu were fabricated with the silicon nitride pattern 6 having a width of 500 Å (within the range of 300-3000 Å provided), the gaps 12 between them having a width of 4500 Å (within the 500-5000 Å range), and the polysilicon spacers 16 having a width of 2000 Å (within the 200-3000 Å range). The resulting structure will have oxide strips 500 Å wide alternating with polysilicon strips 2000 Å wide. In this example, polysilicon makes up 80 percent of the area of the surface.

To assume the relative widths of the polysilicon strips 16 and oxide 20 from a subjective estimate of their appearance in Fig. 6, for example, in the absence of an explicit teaching, is improper. Referring to MPEP 2125:

When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value.

MPEP 2125 continues, quoting from *Hockerson-Halberstadt, Inc. v Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000):

"[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue."

While dimensions are taught in the specification of Wu, *relative* dimensions are not. A specific combination among the dimensions provided by Wu that meets the terms of the claim is nowhere described. Wu does not address the problem of cleaning a surface after polishing by chemical mechanical planarization; thus no suggestion that dimensions advantageous for that purpose would be chosen by a practitioner can be inferred.

As in prior correspondence, the Examiner proposes to grant no patentable weight to the expression "wherein the surface has been planarized by chemical mechanical planarization." As in prior responses, Applicants respectfully maintain that a surface planarized by chemical mechanical planarization is appreciably different in character than a surface not planarized or planarized by some other means, and is different in a manner that is central to the subject of the invention; thus this limitation is entitled to patentable weight.

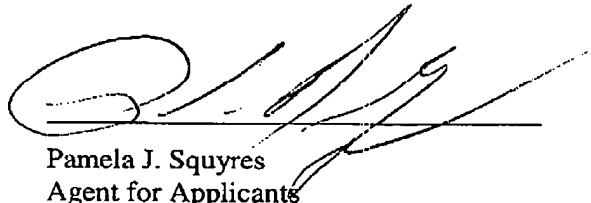
Applicants have shown that each and every element of claim 63, and thus of all of its dependents, is not taught or suggested in the cited references, and thus respectfully request reconsideration.

CONCLUSION

In view of these amendments and remarks, Applicants submit that this application is in condition for allowance. **If any objections or rejections remain, Applicants respectfully request an interview to discuss the references.** In such event, the Examiner is asked to contact the undersigned agent at (408) 869-2921.

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Date


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